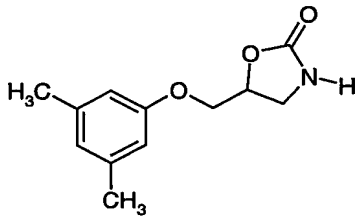
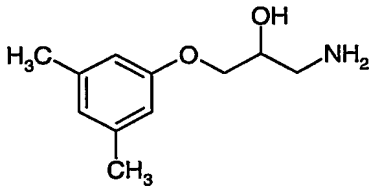
We claim:

1. A novel process for the preparation of 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) comprising

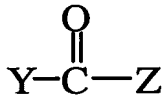


Formula 1

reacting 3-(3,5-dimethylphenoxy)-2-hydroxypropylamine, compound of formula 2, or its acid addition salt with a compound of formula 3,



Formula 2



Formula 3

wherein Y and Z are selected from X, CCl_3CO, 1-imidazolyl or substituted imidazolyl, and OR; wherein X is a halo radical, and R is selected from a substituted or unsubstituted linear, branched or cyclic alkyl radical, and aryl or heteroaryl radical.

2. A process as claimed in claim 1 wherein the reaction is carried out in the presence of a base.
3. A process as claimed in claim 2 wherein the base is potassium carbonate.
4. A process as claimed in claim 1 wherein in the compound of formula 3 Y is a halo radical and Z is OR wherein R is a linear C_1 to C_4 alkyl radical.
5. A process as claimed in claim 4 wherein the compound of formula 3 is ethyl chloroformate.
6. A process as claimed in claim 1 wherein the reaction is carried out in the presence of a facilitator.

7. A process as claimed in claim 6 wherein the facilitator is selected from cyclic and acyclic polyethers.

8. A process as claimed in claim 7 wherein the facilitator is poly(ethylene glycol) with an average molecular weight in the range between 200 to 10,000.

9. A process as claimed in claim 1 wherein the molar ratio of compound of formula 2 to compound of formula 3 is in the range of about 1:0.8 to 1:1.5.

10. A process as claimed in claim 1 wherein the 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) is obtained in a substantially pure form and has a purity greater than 99%.

11. A process for purifying 5-(3,5- dimethylphenoxy)methyl-2-oxazolidinone (formula 1) by crystallizing 5-(3,5- dimethylphenoxy)methyl-2-oxazolidinone (formula 1) from an organic solvent system.

12. A process as claimed in claim 11 wherein the 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) is obtained in a substantially pure form and has a purity greater than 99.5%.

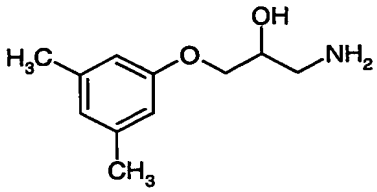
13. A process as claimed in claim 11 wherein the 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) is obtained in a substantially pure form and has a purity greater than 99.9%.

14. A process as claimed in claim 11 wherein the 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) is obtained in a substantially pure form and has a purity greater than 99.5% and no individual impurity that is more than 0.05%.

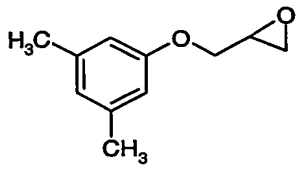
15. A process as claimed in claim 11 wherein the organic solvent system is a mixture of acetone and toluene.

16. A process as claimed in claim 15 wherein the volume ratio of acetone : toluene is about 0.5 : 1.0 to 1 : 10.

17. A process for the preparation of 3-(3,5-dimethylphenoxy)-2-hydroxypropylamine, compound of formula 2, comprising



formula 2



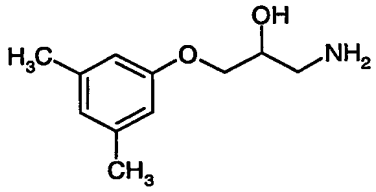
formula 5

treating compound of formula 5 with a source of ammonia to yield compound of formula 2, optionally purifying compound of formula 2 by converting to its acid addition salt.

18. A process as claimed in claim 17 wherein in the source of ammonia is selected from liquor ammonia, liquid ammonia and ammonia gas.

19. A process as claimed in claim 17 wherein the acid addition salt of compound of formula 2 is isolated in substantially pure form.

20. Substantially pure compound of formula 2 or its acid addition salt.

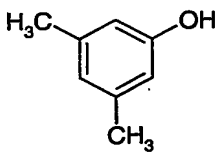


formula 2

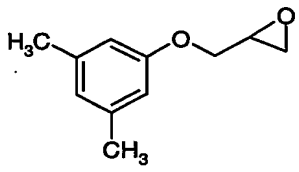
21. A process for the preparation of 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) comprising

a. reacting 3,5-dimethylphenol, compound of formula 4, with epichlorohydrin and a base to obtain an oxirane, compound of formula 5;

b. treating compound of formula 5 with a source of ammonia to yield compound of formula 2, optionally purifying compound of formula 2 by converting to its acid addition salt; and

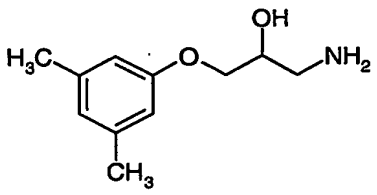


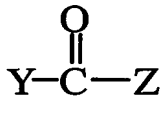
Formula 4



Formula 5

c. reacting 3-(3,5-dimethylphenoxy)-2-hydroxypropylamine, compound of formula 2, or its acid addition salt with a compound of formula 3.





Formula 2 Formula 3

wherein Y and Z are selected from X, CCl_3CO, 1-imidazolyl or substituted imidazolyl, and OR; wherein X is a halo radical, and R is selected from a substituted or unsubstituted linear, branched or cyclic alkyl radical, and aryl or heteroaryl radical.

22. A process as claimed in claim 21 wherein in step (a) the reaction of 3,5-dimethylphenol, epichlorohydrin and a base to obtain an oxirane derivative of formula 5, is carried out in the presence of a facilitator.

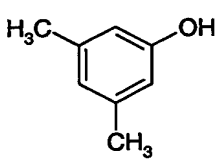
23. A process as claimed in claim 22 wherein the facilitator is selected from cyclic and acyclic polyethers.

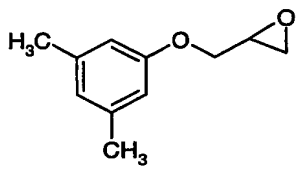
24. A process as claimed in claim 23 wherein the acyclic polyether is poly(ethylene) glycol with an average molecular weight in the range between 200 to 10,000.

25. A process for the preparation of 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) comprising

(a) reacting 3,5-dimethylphenol, compound of formula 4, with epichlorohydrin and a base to obtain an oxirane, compound of formula 5;

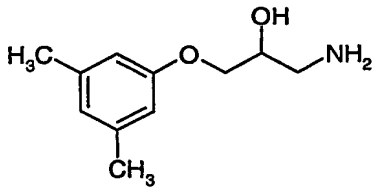
(b) treating compound of formula 5 with a source of ammonia to yield compound of formula 2, optionally purifying compound of formula 2 by converting to its acid addition salt; and



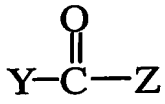


Formula 4 Formula 5

(c) reacting 3-(3,5-dimethylphenoxy)-2-hydroxypropylamine, compound of formula 2, or its acid addition salt with a compound of formula 3, and



Formula 2

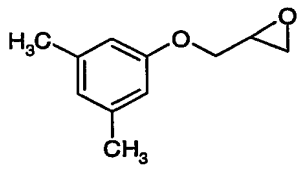


Formula 3

wherein Y and Z are selected from X, CCl_3CO, 1-imidazolyl or substituted imidazolyl, and OR; wherein X is a halo radical, and R is selected from a substituted or unsubstituted linear, branched or cyclic alkyl radical, and aryl or heteroaryl radical.

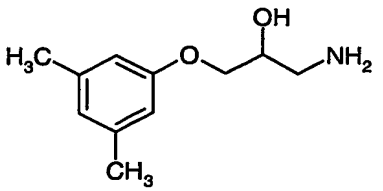
(d) purifying 5-(3,5- dimethylphenoxy)methyl-2-oxazolidinone (formula 1) by crystallizing 5-(3,5- dimethylphenoxy)methyl-2-oxazolidinone (formula 1) from an organic solvent system.

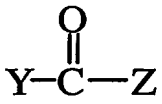
26. A process for the preparation of 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) comprising treating compound of formula 5 with a source of ammonia to yield compound of formula 2, optionally purifying compound of formula 2 by converting to its acid addition salt; and



Formula 5

reacting 3-(3,5-dimethylphenoxy)-2-hydroxypropylamine, compound of formula 2, or its acid addition salt with a compound of formula 3,





Formula 2 Formula 3

wherein Y and Z are selected from X, CCl_3CO, 1-imidazolyl or substituted imidazolyl, and OR; wherein X is a halo radical, and R is selected from a substituted or unsubstituted linear, branched or cyclic alkyl radical, and aryl or heteroaryl radical.

27. A process as claimed in claim 26 further comprising purifying 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) by crystallizing 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone (formula 1) from an organic solvent system.